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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/665,812	09/18/2003	Paul Oommen	873.0128.U1(US)	6617
29683 7590 01/09/2008 HARRINGTON & SMITH, PC 4 RESEARCH DRIVE SHELTON, CT 06484-6212			EXAMINER FAROUL, FARAH	
			ART UNIT 2616	PAPER NUMBER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/665,812	OOMMEN, PAUL	
	Examiner	Art Unit	
	Farah Faroul	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 15 August 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-48 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-48 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 August 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. The following Office Action is based on the amendment filed August 15, 2007, having claims 1-48 and figures 1-6.

### ***Claim Objections***

2. Claims 19, 26-27, and 31-32 are objected to because of the following informalities:

The word "from" located between the words "received" and "to" in line 13 of claim 19 needs to be deleted.

The acronym "cdma" recited in line 1 of claim 26 should be in capital letters as it is an acronym (CDMA).

The acronym "RF" recited in line 1 of claim 27 should be written as "Radio Frequency (RF)".

The acronym SyncML DM recited in line 2 of claim 31 should be written as "Synchronization Markup Language Device Management (SyncML DM)" to define the acronym within the claim.

The acronym WAP recited in the line 2 of claim 31 should be written as "Wireless Application Protocol (WAP)".

The acronym XML recited in the line 2 of claim 31 should be written as "Extensible Markup Language (XML)".

The word "from" located between the words "received" and "to" in line 13 of claim 32 needs to be deleted.

The acronym "cdma" recited in line 1 of claim 39 should be in capital letters as it is an acronym (CDMA).

The acronym "RF" recited in line 1 of claim 40 should be written as "Radio Frequency (RF)".

The acronym SyncML DM recited in line 2 of claim 43 should be written as "Synchronization Markup Language Device Management (SyncML DM)" to define the acronym within the claim.

The acronym WAP recited in the line 2 of claim 43 should be written as "Wireless Application Protocol (WAP)".

The acronym XML recited in the line 2 of claim 43 should be written as "Extensible Markup Language (XML)".

In claims 19 and 32, it is suggested that applicant adds the phrase "the multicast transmission" between the words "directing" and "includes" in line 11, to specify what is being directed to make the claims clear and definite.

In claims 19 and 32, it is suggested that applicant delete the word "with" between "modifying" and "the" in line 11.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 8 and 19-44 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 8 recites the limitation "said second networks" in lines 1 and 2. There is insufficient antecedent basis for this limitation in the claim. The limitation should recite "a plurality of said second network" as applicant has claimed "a second network".

Claim 8 recites the limitation "said multicast agents" in lines 2-3. There is insufficient antecedent basis for this limitation in the claim. The limitation should be written as "said multicast agent" as applicant has claimed only one in base claim 13.

Claim 19 recites the limitation "a plurality of the access networks" in line 5. There is insufficient antecedent basis for this limitation in the claim. The limitation should be written as "the plurality of access networks" to provide proper antecedent basis.

Claim 19 recites the limitation "an access network or access networks" in lines 9-10. The limitation renders the claim vague and indefinite. It is suggested that applicant amend the claim to recite "at least one access network".

Claim 19 recites the limitation "the network" line 12. There is insufficient antecedent basis for the limitation in the claim. Applicant has recited "an intermediate network, "an access network", "an end network". Thus, the limitation should clarify which network is being referred to.

Claim 20 recites the limitation "at least one network" in line 1. The limitation renders the claim vague and indefinite. Applicant has recited "an intermediate network,

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"an access network", "an end network". Thus, the limitation should clarify which network is being referred to.

Claim 21 recites the limitation "at least one network" in line 1. The limitation renders the claim vague and indefinite. Applicant has recited "an intermediate network, "an access network", "an end network". Thus, the limitation should clarify which network is being referred to.

Claim 30 recites the limitation "said second networks" in line 1. There is insufficient antecedent basis for this limitation in the claim. The limitation should recite "a plurality of said second network" as applicant has claimed "a second network".

Claim 30 recites the limitation "a network or networks" in lines 3-4. The limitation renders the claim vague and indefinite. Applicant needs to clarify which of the access, intermediate or end network, he/she is referring to. The limitation should recite "at least one" of such network instead of "a network or networks".

Claim 30 recites the limitation "a recorded network or networks" in line 6. The limitation renders the claim vague and indefinite. Applicant needs to clarify which of the access, intermediate or end network, he/she is referring to. The limitation should recite "at least one" of such network instead of "a recorded network or networks".

Claim 31 recites the limitation "any messaging protocol" in line 2. The limitation renders the claim vague and indefinite. It is suggested that applicant amend the claim to recite "at least one of" the listed protocols.

Claim 32 recites the limitation "a plurality of the access networks" in line 5. There is insufficient antecedent basis for this limitation in the claim. The limitation should be written as "the plurality of access networks" to provide proper antecedent basis.

Claim 32 recites the limitation "the network" lines 12-13. There is insufficient antecedent basis for the limitation in the claim. Applicant has recited "an intermediate network, "an access network", "an end network". Thus, the limitation should clarify which network is being referred to.

Claim 43 recites the limitation "any messaging protocol" in line 2. The limitation renders the claim vague and indefinite. It is suggested that applicant amend the claim to recite "at least one of" the listed protocols.

Claim 44 recites the limitation "a plurality of said access networks" in line 1. There is insufficient antecedent basis for this limitation in the claim. The limitation should be written as "the plurality of access networks" to provide proper antecedent basis.

Claim 44 recites the limitation "a network or networks" in lines 4 and 6. The limitation renders the claim vague and indefinite. Applicant needs to clarify which of the access, intermediate or end network, he/she is referring to. The limitation should recite "at least one" of such network instead of "a network or networks".

#### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:



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A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Note: It is suggested that applicant draft the claims in a better format to make reading and understanding of the different limitations within the claims easier. For example, see the outline of the claims in cited reference (Watanuki et al. US 6,853,639 B1), wherein separate limitations within the claims start on a different line instead of in a block paragraph form as submitted by applicant. The outline of claims 45-48 is an example of a good format to follow for the other claims.

Note: It is suggested that applicant replace the “multicast protocol” phrase language of the claims by “a first network protocol” or “a communication protocol of the first network” as “multicast” does not have its own protocol.

Claims 1-2, 7-8 and 13-14 rejected under 35 U.S.C. 102(e) as being anticipated by Watanuki et al. (US 6,853,639 B1) (reference disclosed by applicant).

For claims 1, 7 and 13, Watanuki discloses a plurality of different networks coupled together by different communication links (column 5, line 57 to column 6, line 3)

At least one multicast agent for coupling a multicast message transmission from a first network to a second network (column 6, lines 4-11)

The at least one multicast agent modifying the multicast message transmission from a multicast protocol of the first network to a multicast protocol of the second network (column 6, lines 4-11)



For claims 2, 8 and 14, Watanuki discloses the first network comprises an IP network and the second network comprises a non-IP network (column 8, lines 14-29)

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 3-6, 9-12, 15-25, 28, 30, 32-38, 41 and 44-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watanuki et al. (US 6,853,639 B1) in view of Paila et al. (US 2003/0100325 A1).

For claims 3, 9 and 15, Watanuki discloses the entire claimed invention except for the first network comprises a wireless IP network and the second network comprises a non-IP network

Paila, from the same or similar network, teaches the first network is a wireless IP network and the second network is a non-IP network (paragraph 15)

Thus, it would have been obvious for someone of ordinary skill in the art to combine the multicast network of Paila with the communication network of Watanuki at the time of the invention. The multicast network of Paila is implemented into the communication network of Watanuki by implementing at least one of the networks as a

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wireless IP network. The motivation to combine the multicast network of Paila with the communication network of Watanuki is to establish a multicast session between different types of networks.

For claims 4, 10 and 16, Paila discloses the first network is a wireless IP network and the second network is a wireless local area network (WLAN) (paragraph 15)

For claims 5, 11 and 17, Paila discloses the first network comprises a wireless IP network and the second network is a Bluetooth network (paragraph 39)

For claims 6, 12 and 18, Paila discloses at least one mobile host is coupled to the second network for receiving the multicast message transmission from the multicast agent (paragraphs 15-16)

For claims 19 and 32, Watanuki discloses a multicast session between the server and the plurality of access networks, the intermediate network, and the plurality of agents coupled to the intermediate network (column 5, line 57 to column 6, line 3);

Receiving a multicast transmission at an agent coupled between at least one access network and the at least one intermediate network (column 6, lines 4-11);

Directing the multicast transmission to at least one access network where the agent has knowledge of at least one mobile device that is to receive the multicast transmission wherein directing the multicast transmission includes modifying the multicast transmission from a network protocol from which the multicast transmission was received to a different network protocol to which the multicast transmission is being directed to; and appropriate for each access network (column 8, lines 14-29)

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For claims 19 and 32, Watanuki discloses the entire claimed invention except for a plurality of mobile devices coupled to the intermediate network through the plurality of access networks

Paila, from the same or similar field of endeavor, teaches establishing a multicast session between several mobile devices coupled to a plurality of networks (paragraphs 15-16).

For claims 20 and 33, Watanuki discloses at least one network is an IP network (column 8, lines 14-29 wherein the first network protocol is IGMP)

For claims 21 and 34, Watanuki discloses at least one network comprises a non-IP network (column 8, lines 14-29 wherein the second network protocol is GMRP)

For claims 22 and 35, Paila discloses at least one access network is a wireless IP network (paragraphs 15-16)

For claims 23 and 36, Watanuki discloses at least one access network is a non-IP network (column 8, lines 14-29 wherein the second network protocol is GMRP)

For claims 24 and 37, Paila discloses at least one access network is a wireless local area network (WLAN) (paragraphs 15-16)

For claims 25 and 38, Paila discloses at least one access network is a Bluetooth (paragraph 39)

For claims 28 and 41, Paila discloses at least one access network is one of a wired or wireless access network (paragraphs 15-16)

For claims 30 and 44, Watanuki discloses a plurality of access networks coupled to an intermediate network via a first agent, the intermediate network is coupled to the

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end network via a second agent, wherein each agent records an identity of at least one network that has enrolled to be part of the multicast session during the set up process (paragraph 35), and wherein each agent directs a received multicast transmission only to a recorded network (column 6, lines 16-20)

For claim 45, Watanuki discloses a first interface for connection with a first network operating in accordance with a first multicast protocol and a second interface for connection with a second network operating in accordance with a second multicast protocol that differs from the first multicast protocol (column 8, lines 14-29); and

A protocol converter to convert a multicast transmission received from the first network protocol to multicast transmission in the second network protocol (column 6, lines 4-11)

For claim 45, Watanuki discloses the entire claimed invention except for the multicast session is being conducted with mobile devices

Paila, from the same or similar field of endeavor, teaches a multicast session is being conducted between mobile devices

For claim 46, Watanuki discloses the first network protocol is an IP protocol and the second protocol is a non-internet protocol (column 8, lines 14-29 wherein the first network protocol is IGMP and the second network protocol is GMRP)

For claim 47, Watanuki discloses the multicast transmission in the second multicast protocol is sent to at least one access network where the device has knowledge of at least one mobile device that is to receive the multicast transmission (column 4, line 52 to column 5, line 6)

For claim 48, Watanuki discloses the multicast transmission is comprised of a software update (column 6, lines 42-45).

6. Claims 26-27 and 39-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watanuki in view of Paila as applied to claims 19 and 32 above, and further in view of McDonald et al. (US 2002/0114302 A1).

For claims 26 and 39, Watanuki and Paila disclose the entire claimed invention except for the access network comprises a CDMA network.

McDonald, from the same or similar field of endeavor, teaches the access network of a multicast communication network comprises a CDMA network (paragraph 21).

Thus, it would have been obvious to someone of ordinary skill in the art to combine the combine the multicast network of McDonald with the modified system of Watanuki and Paila at the time of the invention. The multicast network of McDonald is implemented into the modified system of Watanuki and Paila by implementing at least one of the access networks as a CDMA network. The motivation to combine the multicast network of McDonald with the modified system of Watanuki and Paila is that it enables multicast transmission between different networks.

For claims 27 and 40, McDonald discloses at least one access network comprises a low power RF network (paragraph 21).

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7. Claims 29 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watanuki in view of Paila as applied to claims 19 and 32 above, and further in view of Aaltonen et al. (US 2002/0023264).

For claims 29 and 42, Watanuki and Paila disclose the entire claimed invention except for at least one access network comprises an infra red optical network

Aaltonen, from the same or similar field of endeavor, teaches one access network comprising an optical network (paragraph 21).

Thus, it would have been obvious to someone of ordinary skill in the art to combine the network topology of Aaltonen with the modified system of Watanuki and Paila at the time of the invention. The network topology of Aaltonen is implemented into the modified system of Watanuki and Paila by implementing at least one of the access networks as an infrared optical network. The motivation to combine the network topology of Aaltonen into the modified systems of Watanuki and Paila is that it enables multicast transmission between different networks.

8. Claims 31 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watanuki in view of Paila as applied to claims 19 and 32 above, and further in view of Gupta et al. (US 6,763,384 B1).

For claims 31 and 43, Watanuki and Paila disclose the entire claimed invention except for the messaging between networks is based on a SyncML DM protocol, WAP, XML or any messaging protocol supported between networks

Gupta, from the same or similar field of endeavor, teaches sending messages between networks using WAP or XML messaging protocols (column 6, lines 62-65 and column 8, lines 59-66).

Thus, it would have been obvious to someone of ordinary skill in the art to combine the messaging method of Gupta with the modified system of Watanuki and Paila at the time of the invention. The messaging method of Gupta is implemented into the modified system of Watanuki and Paila by sending the multicast messages between the networks using WAP or XML. The motivation to combine the messaging method of Gupta with the modified system of Watanuki is that it enables message transmission between different networks.

### ***Response to Arguments***

9. Applicant's arguments with respect to claims 1-48 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Watkinson (US 7,233,987 B2) and White et al. (US 2003/0227934 A1) are cited to show systems pertinent to applicant's invention.



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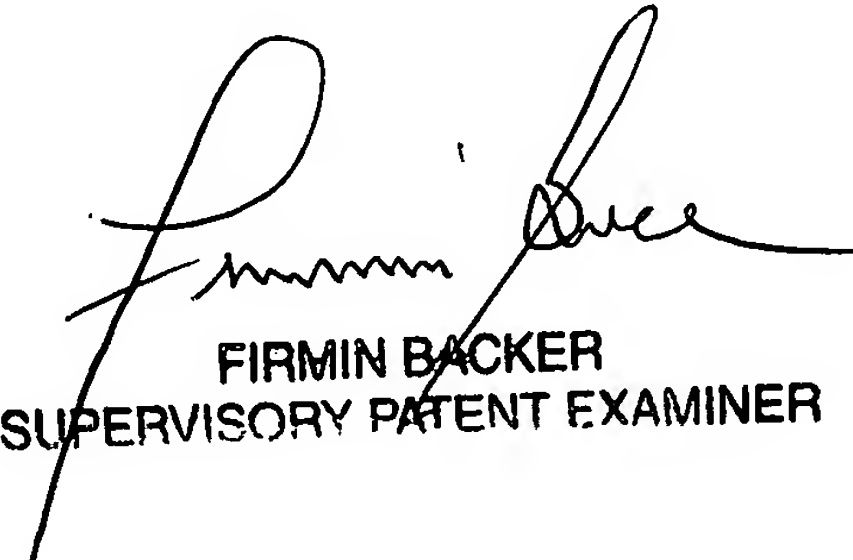
11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Farah Faroul whose telephone number is 571-270-1421.

The examiner can normally be reached on Monday - Friday 6:30 AM - 4 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Firmin Backer can be reached on 571-272-6703. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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